

AUGUST 2018 Update

5G Broadband Update

Major changes to the forecast over the last six months include:

1. Mobile Experts has significantly boosted our estimate for 5G deployment below 6 GHz, starting with 200,000 base stations in 2019. Indications from China Mobile are strong that they will deploy extremely aggressively, starting in Jan-Feb 2019.
2. Verizon and AT&T have announced additional cities for 28 GHz 5G deployment, and field trials are showing better than expected range and penetration. We have increased our estimates throughout the five-year forecast for mm-wave infrastructure.
3. Deployment in the short term for T-Mobile USA has been listed as LTE deployment in 2018, with an anticipated software upgrade to 5G during 2019.
4. We've increased the number of estimated sectors for 5G per base station. We started with a baseline of 3 sectors per base station but now we're assuming about 3.4 RRH per gnodeB based on expected placement on existing sites.
5. Along with the increase in 5G base stations, we have increased our estimates for client devices (CPEs) based on field trial results and anticipated coverage from the deployment.
6. Qualcomm's introduction of standard mm-wave modules for handsets has increased the ease and availability. We have increased our estimate for mm-wave adoption on smartphones, although in the big picture the number is still fairly small, growing to only about 200 million handsets in the 2022 timeframe.
7. We continue to leave the number of 5G IoT devices low. This quarter we completed some analysis of cost and effectiveness for 5G URLLC devices which confirms our forecast that only limited applications can afford this feature.